

CG / DD / DDG-993 MATERIAL CHECKS

GENERAL CHECKS

DESCRIPTION	LOA	IA
MLOC/EOSS		
CLEANLINESS/PRESERVATION/STOWAGE BILGE & MACH FOUNDATION/SPACE PRESERVATION SPACE CLEANLINESS, DECKPLATES, HANDRAILS, LAGGING, WATERTIGHT & OTHER DC FITTINGS/CLOSURES, SPACE LIGHTING, SPACE STOWAGE, FLAMMABLES IN SPACE; OIL FREE BILGES. SECURE FOR SEA		
REPAIR PARTS STORED IN SPACES LABELED, PIPING SYSTEMS STENCILED / RELEIF VALVES LABELED WITH DATA GAGES WITHIN CALIBRATION DATES		
TEST ABTS		
CHECK MBT'S/POWER AVAIL/BREAKER LABELING		
GAGE CALIBRATION / INSTRUMENTATION: GAGE ID AND CAL /SWBD METER OPER AND CAL / ALARMS / INDICATOR LIGHTS		
VALVE MAINTENANCE		
FIRE PUMPS: OPTEST, COUPLING GUARD, REMOTE START,STOP, CHECK VLV, MECHANICAL SEAL, PRESSURE		
TEST OPERATE LESLIE VALVES		
VENTILATION TO INCLUDE: CONTROLLER INDICATOR LIGHT/HIGH AND LOW SPEED OPERATION, REMOTE START/STOP		

DC EQUIPMENT

CO2, PKP, PMS WITHIN PERIODICITY		
FIRE STATIONS COMPLETE		
EMERGENCY LIGHTING		
AFFF TEST OPERATE STATION NR1 NR2		
TANK LEVEL, GAGE CALIBRATION, LEAKAGE		
REFRACTOMETER/QUANTAB TEST (RESULTS W/IN LAST 14 DAYS)		
CHECK AFFF STATION ALIGNMENT		
ACTUATION STATIONS / PIPING & SPRINKLER HEADS / HOSE HYDRO DATE / FITTINGS / VALVE ALIGNMENT / HOSE REEL / ANTI-CRIMPING STRAP / NOZZLES		
TEST OPERATE REMOTE OPERATED VALVES		
TEST OPERATE EDUCTORS		
EEBDS QUANTITY / STOWAGE / DISTRIBUTION / TAMPER SEAL / MOD		
INSPECT JOINTER DOOR / ESCAPE TRUNKS		
PHOTO-LUMINESCENT PAINT		
CO2: ACTUATION BOTTLE PMS FLEX HOSE TEST TAGS REMOTE ACTUATION STATIONS PIPING/NOZZLE INTEGRITY		

HALON

ACTUATION STATIONS / PIPING / SPRINKLER HEADS HOSE HYDRO DATE	AMR1	AMR2	MER1	MER2	3GTG		
OPERATIONAL TEST (PRIMARY) - CO2 ACTUATION	AMR1	AMR2	MER1	MER2	3GTG		
OPERATIONAL TEST (SECONDARY) - CO2 ACTUATION	AMR1	AMR2	MER1	MER2	3GTG		
PRESSURE SWITCH TEST (VENTS, ALARMS-VIS/AUD)	AMR1	AMR2	MER1	MER2	3GTG		
HALON LEVEL CALI STICKER/BOTTLE PRESS	AMR1	AMR2	MER1	MER2	3GTG		

24NOV97

O = OBSERVE

X = DEMONSTRATE

CCS**PACC CHECKS**

DESCRIPTION	LOA	IA
TEST ALARMS AND STATUS INDICATORS (CTAI)		
SHIFT TO UPS / CHECK REDUNDANT POWER SUPPLIES ARE OPERATIONAL		
CLEANLINESS AND OPS OF PACC AND PACCEE FANS / FILTERS / CABINETS		
FO SVC TANK SUCT AND RECIRC VLVS USING TOGGLE SWITCH		
SOLENOID OPERATED FO TRIP VLVS TO ALL MODULES USING PACC TOGGLE		
MN ENG CLUTCH / BRAKE ASSEMBLIES AND LO PRESS OVERRIDE KEY SWITCHES (PHILADELPHIA CLUTCHES ONLY)		
CRP SLEW RATE (CPPT)		
PROPELLER PITCH LOW HYDRAULIC PRESS ALARM		
VERIFICATION OF ELECTRONIC CALIBRATION		
EOT WRONG DIRECTION ALARM		
ENGAGE/DISENGAGE TURBINE BRAKES		
TEST OPERATE LO PUMPS (CLOP)		
TEST OPERATE FO PUMPS (FLOP)		
TEST OPERATE SW SVC PUMPS		
DATA LOGGER TEST RUN		
DEMONSTRATE HP START OF GTM		

EPCC CHECKS

TEST ALARMS AND STATUS INDICATORS (EPCT)		
SHIFT TO UPS / CHECK REDUNDANT POWER SUPPLIES ARE OPERATIONAL		
CLEANLINESS AND OPS OF EPCC AND EPCCEE FANS / FILTERS / CABINETS		
EPCC LONG LOGIC SELF TEST (EPCT)		
EPCC SWBD GROUND DETECTION AND EMERG POWER GROUND DETECT		
SWBD FAULT CURRENT DETECTION PANEL AT EPCC		
TEST SWBD FAULT CURRENT DETECTOR		
CONDUCT TOPS PERFORMANCE CHECK		
DEAD BUS PICK-UP	1 GTG	2 GTG 3 GTG
APD (GTPA) LOAD AND PARALLEL EACH	1 GTG	2 GTG 3 GTG
REVERSE POWER RELAY	1 GTG	2 GTG 3 GTG

DCC CHECKS

LAMPS AND ALARMS (CAF)		
HAZARD FAULT SYSTEM		
RANDOM TEST OF IONIZATION DETECTOR/HEAT SENSOR (CAF) (4 LOCATIONS)		
"Z" AND CIRCLE "W" VENT CONTROLS (CG: 2 OF 5; DD/DDG: 2 OF 4 CIRCLE W, 2 OF 3 Z)		
TEST CLOSURE OF FIRE ZONE DOORS		
FIRE PUMP START/STOP LOGIC	1	2 3 4 5 6
AUTO START CAPABILITY OF FIREPUMPS ON LOSS OF FIREMAIN	1	2 3 4 5 6

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CCS (CONTINUED)**FUEL SYSTEM CONTROL CONSOLE (FSCC)**

DESCRIPTION	LOA	IA
LAMPS/ ALARMS/ HAZARD FAULT SYSTEM (CAF)		
FO PURIFIER AND FO TRANS PUMP E-STOP		
TEST OPERATE ALL MOTOR OPERATED FO VLVS		

PROP AND AUX MACHINERY INFO SYSTEM EQUIP (PAMISE)

SHIFT TO UPS / CHECK REDUNDANT POWER SUPPLIES ARE OPERATIONAL		
RUN TEST PRINTOUT ON BELL AND DATA LOGGER (CHECK FOR CAL AND UNUSUAL CONDITIONS)		
CHECK STATUS /ALARMS ON THE CISE MONITOR AND CONTROL PANEL		
INSPECT CLEANLINESS AND OPS OF CISE AND S/CE NR 1 FAN / FILTERS / CABINETS		

GAS TURBINE GENERATORS

CHECK BLOW-IN DOORS FOR PROPER OPERATION/PROPER SEAL	1GTG	2GTG	3GTG		
INSPECT INTAKE FOR INTEGRITY AND CLEANLINESS	1GTG	2GTG	3GTG		
LOCOP LAMPS AND ALARMS (GTGMS)	1GTG	2GTG	3GTG		
RPM AND TEMPERATURE CONTROL CIRCUITS	1GTG	2GTG	3GTG		
GTG FIRE DETECT AND EXTINGUISHING SYSTEM. TEST FIRE ALARM, COOLING FAN, VENT/FIRE DAMPER, CO2 RELEASE HEAD, FUEL VLVS AND 5TH AND 10TH STAGE BLEED AIR VLVS.	1GTG	2GTG	3GTG		
FOQCV TO ENCLOSURE FROM A REMOTE LOCATION	1GTG	2GTG	3GTG		
CONDUCT GTGI	1GTG	2GTG	3GTG		
CHECK HEAD TANK GAGE GLASS/CUTOUTS AND PLACARDS	1GTG	2GTG	3GTG		
GTG COOLING WATER PUMP OPERATION	1GTG	2GTG	3GTG		
OPTEST GTG EMERGENCY BACK-UP COOLING WATER CLA-VLV	1GTG	2GTG	3GTG		
LO FLOW THROUGH GTG SIGHT FLOW INDICATORS	1GTG	2GTG	3GTG		
TEST LOW LO PRESSURE ALARM	1GTG	2GTG	3GTG		

WASTE HEAT BOILERS

WASTE HEAT BOILER LOCAL OPERATING PANEL LAMPS/ ALARMS	1WHB	2WHB	3WHB		
WASTE HEAT BOILER LAYUP (AS APPLICABLE)	1WHB	2WHB	3WHB		
PROPER OPERATION: WITHIN PARAMETERS, BOILER SAFETY AND GAGE GLASS CUTOUT REMOTE PULL CABLES, CONTROL AIR PRESSURE AND GAS INLET/OUTLET TEMPS	1WHB	2WHB	3WHB		
DFT OPERATION (IF APPLICABLE)	1WHB	2WHB	3WHB		
CONTINUOUS INJECTION SYSTEM ALIGNMENT AND OPERATION	1WHB	2WHB	3WHB		

SWITCH BOARDS (MER1 / MER2 / 3GTG)

INSPECT SWBD BATTERIES: CONNECTIONS, CASING CRACKS, PROPER CHARGE, MOUNTING BRACKET, CLEAN AND DRY, VENTED CAPS IN PLACE, ADEQUATE EXHAUST VENTILATION.	1 SWBD	2 SWBD	3 SWBD		
INSPECT SWBDS: INTEGRITY, GROUND TEST, BREAKERS INOPERATIVE, GLOVES / BOOTS / FACE SHIELD / SHORTING PROBE ON STATION, POWER/BREAKER INDICATORS, BREAKERS AND FUSES PROPER SIZE.	1 SWBD	2 SWBD	3 SWBD		

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AUXILIARY SPACES (AUX 1 / AUX 2 / SHAFT ALLEY / 2 HPAC ROOM)**HP AIR SYSTEM (AUX 1/ 2 HPAC ROOM)**

DESCRIPTION			LOA	IA
TEST HPAC TEMP MONITOR	1 HPAC	2 HPAC		
TEST HPAC LOAD/UNLOAD PRESSURES	1 HPAC	2 HPAC		
OBSERVE OPERATION: WITHIN PARAMETERS, LO SAMPLE CONNECTION, DIPSTICK MARKINGS, RELIEF VLVS, SYSTEM CONTAMINATION BY WATER, OIL AND SEDIMENT.	1 HPAC	2 HPAC		
OBSERVE HPAD OPERATION: WITHIN PARAMETERS, NOT ON BYPASS, NO ALARMS IN CUTOFF	1 HPAC	2 HPAC		

LP AIR SYSTEM (AUX 1 - CG/DDG ONLY)

OBSERVE LPAC OPERATION: WITHIN PARAMETERS, LEAD/LAG CONFIGURATION, RELIEF VLVS, LO SAMPLING CONN, DIPSTICK MARKING, LO CONTAMINATION	2 LPAC		
SHIFT LPAC DUPLEX STRAINER	2 LPAC		
OBSERVE LPAD OPERATION: WITHIN PARAMETERS, NOT IN BYPASS, ALARMS	2 LPAC		

FO TRANSFER AND RECIRC SYSTEM (AUX 1 / AUX 2)

FAULT, HAZARD AND LAMP TEST ON LOCAL FO SYSTEM CONTROL CONSOLE	AUX 1	AUX 2		
START AND PLACE ON-LINE, OBSERVE FOR PROPER OPERATION	AUX 1	AUX 2		

SEA WATER SERVICE SYSTEM (AUX 1 / AUX 2)

OBSERVE SWS PUMP OPERATION: WITHIN PARAMETERS, COUPLING MECH ALIGNMENT, REMOTE START/STOP FROM PACC, GROUNDING STRAPS AND SOUND ISO, MOTOR AND CONTROLLER WIRING, CHECK VLV OPERATION, PROPER ROTATION, GLAND/MECH SEAL LEAKAGE (SWPM)	AUX 1	AUX 2		
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FIRE PUMPS (FWD PUMP ROOM / AUX 1 / AUX 2 / SHAFT ALLEY)

OBSERVE FIRE PUMP OPERATION: WITHIN PARAMETERS, COUPLING MECH ALIGNMENT, REMOTE START/STOP FROM DCC, GROUNDING STRAPS AND SOUND ISO, MOTOR AND CONTROLLER WIRING, CHECK VLV OPERATION, PROPER ROTATION, GLAND/MECH SEAL LEAKAGE (FPM)	FWD PMP RM NR 1 FFP	AUX 1 NR 3 FFP	AUX 2 NR 4 FFP	S/A NR 6 FFP		
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MAIN SHAFTING (AUX 1 / AUX 2 / SHAFT ALLEY)

OBSERVE LSB TO INCLUDE: SUMP LEVEL, DIPSTICK MARKINGS, PHYSICAL SECURITY, SLINGER RING INSPECTIONS, LO SAMPLE CONNECTION, SEAL LEAKAGE, SPARE BRNG AVAILABILITY.	AUX 1	AUX 2	SHAFT ALLEY		
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OBSERVE STERN TUBE COOLING AND FLUSHING WATER SUPPLY, FILTER/STRN DELTA P, SYSTEM INTEGRITY AND LEAKAGE, OPERATING WITHIN PARAMETERS, AND INFLATABLE SEAL AIR SUPPLY (STCW)	PORT SHAFT	STBD SHAFT		
TEST SHAFT SEAL LOW FLOW/LOW PRESSURE ALARM (STCW)	PORT SHAFT	STBD SHAFT		
OBSERVE SHAFT COUPLING GUARDS, GROUNDING STRAPS, AND BLKHD SEALS	PORT SHAFT	STBD SHAFT		

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MER 1 AND MER 2

FUEL OIL SERVICE SYSTEM

DESCRIPTION			LOA	IA
FUEL OIL SERVICE PUMP LOGIC SEQUENCING	MER 1	MER 2		
FUEL OIL COALESCER AUTOMATIC SHIFTING AND BASKET INTERLOCKS. OBSERVE FOR INTERSTAGE BUTTERFLY VLV LEAKAGE	MER 1	MER 2		
TEST OPERATE QUICK CLOSING FO SUCTION VLV	MER 1	MER 2		

LUBE OIL PURIFIER AND HEATER

OPERATION WITHING PARAMETERS	MER 1	MER 2		
CONDUCT LO PURIFIER EFFICIENCY TEST	MER 1	MER 2		

LUBE OIL SERVICE SYSTEM

DEMO LOW LO PRESSURE INTERLOCK SWITCHES ON ALL MRG BRAKE ASSEMBLIES	MER 1	MER 2		
OBSERVE SUMP LEVEL INDICATOR	MER 1	MER 2		
OBSERVE LO COOLER OUTLET/BEARING TEMPERATURES	MER 1	MER 2		
DEMONSTRATE LO STRAINER OPERATION: SPRAY SHIELD INTEGRITY, STRAINER BASKET INSPECTION, OPERATION OF VENT, DRAIN AND EQUALIZING VLV, PLUG COCK LEAKAGE, AND STRAINER DELTA "P"	MER 1	MER 2		
DEMONSTRATE LO STRAINER INTERLOCK DEVICES (LODS, LODF)	MER 1	MER 2		
TEST DUPLEX STRAINER/FILTER DELTA "P" HIGH ALARM	MER 1	MER 2		
OPERATION OF LO SYSTEM AT PRESSURE SETPOINTS	MER 1	MER 2		
TEST LOW LO PRESSURE ALARMS AND LO PUMP LOGICS	MER 1	MER 2		
SEQUENCE LO PUMPS. OBSERVE UNLOADER OPERATION AND LO PRESSURE.	MER 1	MER 2		
INSPECT OPERATION OF SUMP HEATERS AND TEMP REGULATING VLVs	MER 1	MER 2		

MAIN REDUCTION GEAR ASSEMBLY

OPERATE CLUTCH BRAKE ASSEMBLIES FROM PLCC AND PACC	MER 1	MER 2		
OBSERVE LO FLOW THROUGH ALL SIGHT FLOW INDICATORS	MER 1	MER 2		
OBSERVE BEARING TEMPERATURES	MER 1	MER 2		
OBSERVE FOR LO LEAKS AND OIL ACCUMULATION IN CASING CAVATIES	MER 1	MER 2		
OBSERVE VENT FOG PRECIPTATOR OPERATION	MER 1	MER 2		
OPERATE TURNING GEAR AND LOCK SHAFT (MRTG, LUSU)	MER 1	MER 2		
OBSERVE SECURITY LOCKS AND WIRE SEALS	MER 1	MER 2		
OBSERVE DEHUMIDIFIER OPERATION	MER 1	MER 2		

LP AIR SYSTEM

OBSERVE LPAC OPERATION: WITHIN PARAMETERS, LEAD/LAG CONFIGURATION, HIGH TEMP AND LOW LO SHUTDOWN, RELIEF VLVs, LO SAMPLING CONN, DIPSTICK MARKING, LO CONTAMINATION	MER 1	MER 2		
SHIFT LPAC DUPLEX STRAINER	MER 1	MER 2		
OBSERVE LPAD OPERATION: WITHIN PARAMETERS, NOT IN BYPASS, ALARMS	MER 1	MER 2		

FIRE PUMP

OBSERVE FIRE PUMP OPERATION: WITHIN PARAMETERS, COUPLING MECH ALIGNMENT, REMOTE START/STOP FROM DCC, GROUNDING STRAPS AND SOUND ISO, MOTOR AND CONTROLLER WIRING, CHECK VLV OPERATION, PROPER ROTATION, GLAND/MECH SEAL LEAKAGE (FPM)	2 FFP	5 FFP		
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MER 1 AND MER 2 (CONTINUED)

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PROPULSION LOCAL CONTROL CONSOLE (PLCC)

DESCRIPTION			LOA	IA
TEST ALARMS AND STATUS INDICATORS (CTAI)	MER 1	MER 2		
SHIFT TO UPS / CHECK REDUNDANT POWER SUPPLIES ARE OPERATIONAL	MER 1	MER 2		
DEMONSTRATE FUEL OIL SERVICE TANK SUCTION AND RECIRC VALVES SWITCHES FROM PLCC	MER 1	MER 2		
DEMONSTRATE SOLENOID OPERATED FO TRIP VLVS TO BOTH MODULES USING PLCC TOGGLE SWITCHES	MER 1	MER 2		
DEMONSTRATE PLCC START/STOP LOGIC SELF TEST (CTCC)	MER 1	MER 2		

PROPULSION GAS TURBINE MODULE CHECKS

DEMONSTRATE LM 2500 FIRE DETECTION/EXTINGUISHING SYSTEM, INCLUDING FLAME DETECT SYSTEM POWER CONTINUITY LOSS	2A	2B	1A	1B		
INSPECT INTAKE PLENUM	2A	2B	1A	1B		
INSPECT GTM AND BASE ENCLOSURE EXTERIOR (GTMI)	2A	2B	1A	1B		
OBSERVE LIGHTING AND DOOR SEALING SURFACES	2A	2B	1A	1B		
DEMONSTRATE FSEE CHECKS: LM 2500 POWER TURBINE OVERSPEED SWITCH, SPEED SIGNAL LOSS, AND SPEED LIMITING SYSTEM. BE PREPARED TO CONDUCT COLD PLANT SPEED LIMITING AND OVERSPEED SWITCH TESTS USING THE PROCEDURES OUTLINED IN THE LM 2500 TECH MANUAL. ADDITIONALLY, SIGNAL LOSS BYPASS, LOSS OF FSEE POWER AND LOSS OF FSDV POWER AND TORQUE LIMITING TEST SHOULD BE INCLUDED.	2A	2B	1A	1B		

PROPELLER PITCH CONTROL

SAMPLE AND TEST HYDRAULIC OIL	MER 1	MER 2		
VERIFY ELECTRONIC CALIBRATION WITH INSTALLED LOCAL SCALE FOR CONSISTENCY	MER 1	MER 2		
VERIFY PROPER OIL LEVEL (SUMP, HEAD TANK)	MER 1	MER 2		
OBSERVE FILTER / STRAINER DIFFERENTIAL PRESSURE	MER 1	MER 2		
INSPECT CRP SYSTEM FOR LEAKS	MER 1	MER 2		
CHECK ELECTRIC PUMP OPERATION	MER 1	MER 2		
OBSERVE SUMP HEATER OPERATION	MER 1	MER 2		
DEMONSTRATE OD BOX OPERATION, INCLUDING USE OF EMERGENCY PITCH HAND PUMP (CPPT)	MER 1	MER 2		

MER 2 (ADDITIONAL CHECKS)**SEA WATER SERVICE SYSTEM**

OBSERVE SWS PUMP OPERATION: WITHIN PARAMETERS, COUPLING MECH ALIGNMENT, REMOTE START/STOP FROM PACC, GROUNDING STRAPS AND SOUND ISO, MOTOR AND CONTROLLER WIRING, CHECK VLV OPERATION, PROPER ROTATION, GLAND/MECH SEAL LEAKAGE (SWPM)	MER2		
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MAIN SHAFTING

OBSERVE LSB TO INCLUDE: SUMP LEVEL, DIPSTICK MARKINGS, PHYSICAL SECURITY, SLINGER RING INSPECTIONS, LO SAMPLE CONNECTION, SEAL LEAKAGE, SPARE BRNG AVAILABILITY.	2C LSB		
OBSERVE SHAFT COUPLING GUARDS, GROUNDING STRAPS, AND BLKHD SEALS	PORT SHAFT		

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